Time Critical Targeting

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Overview

- Definition...Performance Threshold
- The Kill Chain...Closing the Seams
- AF TCT Initiatives
    - AOC...Spiral Development
    - Predictive Battlespace Awareness
    - Data Links...Networking the Force
    - JEFX...Experimenting for the Future
- Conclusion
**Time Critical Target (TCT)**

TCT: A TST with an extremely limited window of vulnerability or attack opportunity. These emerging targets challenge achievement of theater objectives and require immediate exploitation or attack IAW JFC guidance.

“From sensor… to strike… in single digit minutes.”

**General Jumper**

The effect on the ‘target’ may be kinetic or non-kinetic …from dropping bombs, to information operations, to humanitarian relief. Achieving the desired effect is the key...
**TCT - Core Challenge**

"Solid" Intel Prep of Battlefield

Defeating Theater TCTs
- 30 Min (T)
- 15 Min (0)
- <10 Min (vision)

Find
- 75% in IPB Areas
  - 5 Min

Fix
- 2 Min

Target
- 3 Min

Engage
- 25 Min

Assess
- 30 Min

**Performance Thresholds on TCT 30 Min Window**
- Identification: 2 mins from detect
- Tasking Timelines: 30 mins detect to Wpn impact
- Decision Aid Support: 2 mins
- Target Engagement within: 30 mins of TCT declaration
- Continuous IPB: 2 min to access data
- Streamlined Tasking Timeline: 3 mins

**Parallel Processes**
- T=0
- 2 Mins
- 3 Mins
- 25 Mins

**Formulate attack**
- Position weapon sys
- Employ weapon
- Weapon fly-out

**Track/CID**
- Weapon Select
- Commit

**FIND**
- FIX
- TRACK
- TARGET
Working The Seams

JIPB/Predictive Battlespace Awareness
- Digital Topographic Support System
- Automated Assistance with IPB
- ISR Collection Plan
  - ISR Manager
  - Dynamic Cueing

Geolocate, Validate, Verify
- ISR Manager
- Correlate & Fuse Data
  - DCGS
  - JSWS Block 20
- Identify- Certainty Estimate

Clearance to fire
- Datalinks
- Laser spot
- Weapon launch
- Humanitarian airdrop

Feedback/Update Databases

BDA
Sensor Coverage
Release Re-roles
Feedback/Update Databases

Select Strike Package/Re-role
- Weapon Target Pairing Tool
- Persistent tracking/PHID
- ROE/Collateral Damage/No Strike
- Coordinate Across AO/Phase Lines
- Final Approval

Prioritize/Sort
- Follow/Relocate
- NCCT
- PHID
- Resolve Data Link Ambiguities
- JICO Toolkit

Integrity - Service - Excellence
AOC is the Key
Spirally Developing the AOC

- **Industry & Govt (C2ISR Technologies)**
  - Meeting A Requirement (ORD, CRD or IRD)

- Advisors
  - AC2ISRC/CCT
  - ESC/CX

- Product SDIPTs
  - C2 Ops
  - ISR
  - ACS
  - C&I

- Innovation Development
  - Spiral Development Task Force

- Enterprise Oversight
  - Baseline proposed
  - Baseline approved

- AOC SDIPT
  - Low-risk, quick-kill

- AOC Baseline
  - Theater-Unique
  - Common
  - ESC/CX

- CAOC-X IMT
  - AOC Weapon System Oversight
Intel Prep of the Battlespace

Doctrine Models

Area Refinement

Terrain Suitability: SA-15

Hide Areas

Employment Concept

TTP: CCD & Mobility

Situational Influences

Observation Refinement

Event Modeling & COA Development

Movement Projection

COA Package

Situational Influences

NAIs

TAIs
Key Enabler: Data Links

- Data Links now a major AF acquisition program
- Air Force C2 & ISR Center:
  - Built roadmap
  - Consolidates requirements
  - Integrates POM submission
  - Monitors execution
- AF now has 5 datalink Program Elements: Fighter, Bomber, C2ISR, Airlift and Infrastructure
- Electronic Systems Center provides enterprise integration
JEFX 02 TCT

Critical Capability Statements

- Conduct terrain analysis to refine threat location and movement projections \((FIND)\)
- Provide continuous IPB development and enemy COA refinement using real time sensor data \((FIND)\)
- Display near real time TCT ground picture for evidence accrual and rapid ID \((FIND, FIX, TRACK, TARGET)\)
- Develop rapid, high fidelity targeting info for TCT engagements \((FIX, TARGET)\)
- Provide rapid weapon target pairing based on commander’s guidance, ROE, target priority, attrition analysis and probability of kill \((TARGET, ENGAGE)\)
- Enable data links for rapid TCT Ops \((FIND, FIX, TRACK, TARGET, ENGAGE and ASSESS)\)

Performance Threshold: F2T2EA TCTs in JEFX 02 in 30 minutes or less
AF goal is to use air and space power to apply right effects to achieve battlespace dominance.

Key to achieving the right effects is warfighter having the right information at the right time to make the right decision. Seamless, integrated C4ISR is enabler for making that decision.

Conclusion

Horizontal Integration of Manned, Unmanned and Space Platforms